

## The first record of *Tectusa* from the Greater Caucasus, Georgia (Coleoptera: Staphylinidae: Aleocharinae: Oxypodini)

With 7 figures and 1 map

VOLKER ASSING<sup>†</sup>

<sup>†</sup>Volker Assing died completely unforeseen after sending the last corrections to this article. Unfortunately, he was no longer able to confirm their implementation. The editorial team hopes to have implemented everything in his will. We mourn the loss of an outstanding taxonomist and esteemed colleague.

Published on 2022-12-05

DOI: 10.3897/contrib.entomol.72.e97272

### Abstract

*Tectusa abanona* spec. nov. (Georgia: Kakheti: Abano pass), the first confirmed record of the oxypodine genus *Tectusa* BERNHAUER, 1899 from the Greater Caucasus, is described and illustrated. The distributions of the two Caucasian representatives of the genus are mapped.

### Taxonomic acts

*Tectusa abanona* spec. nov. – urn:lsid:zoobank.org:act:DC408036-37A5-4112-AEA5-614D3F89DF92

### Key words

Coleoptera, Staphylinidae, Aleocharinae, Oxypodini, *Tectusa*, West Palaearctic region, Georgia, Greater Caucasus, taxonomy, new species, distribution map

### Zusammenfassung

*Tectusa abanona* spec. nov. (Georgien: Kakheti: Abano-Pass), der erste Nachweis der Oxypodinen-Gattung *Tectusa* BERNHAUER, 1899 aus dem Großen Kaukasus, wird beschrieben und abgebildet. Die Verbreitung der Gattung im Kaukasusgebiet wird anhand einer Karte illustriert.

### Schlüsselwörter

Coleoptera, Staphylinidae, Aleocharinae, Oxypodini, *Tectusa*, Georgien, Großer Kaukasus, Taxonomie, Neubeschreibung, Verbreitungskarte

## Introduction

According to a recent revision (ASSING 2021), the genus *Tectusa* BERNHAUER, 1899 previously included 41 named species, all of them micropterous, locally endemic, and distributed in the southern West Palaearctic region, with by far the greatest diversity recorded from the southern Balkans. Only few species have been discovered in other regions such as Portugal (one species), Turkey (one), Ukraine (one), and Georgia (one). As many as 13 species (including those from Ukraine and Georgia), however, are of doubtful generic assignment. It has not been possible to revise the type material of these species, since, owing to reasons outlined in the revision, the types have been inaccessible for more than two decades. Another problem resulting from the uncertain generic assignments is that, although *Tectusa* is most likely polyphyletic, a comprehensive analysis of intra- and intergeneric affiliations of the genus is still pending.

The only species previously known from the Caucasus region is *T. caucasica* (BERNHAUER, 1902) (original combination: *Ocyusa caucasica*), whose description is based on three syntypes from the eastern Lesser Caucasus (“aus dem Suramgebirge”) (BERNHAUER 1902). The geographically closest congeners are *T. winkleri* (BERNHAUER 1940) from the southern Crimean Peninsula and *T. taurica* ASSING, 2004 from Kahramanmaraş (central southern Turkey).

*Tectusa* species, particularly those of the *T. killinica* lineage, are generally found in high-altitude habitats, usually exclusively at the margins of snowfields during a short time window in spring, one of the reasons why records of this genus are rare (ASSING 2021).

During a field trip to Georgia conducted by Michael Schülke (Berlin) and the author in summer 2022 two males of an undescribed *Tectusa* species were collected at the Abano pass in Kakheti. This discovery is particularly remarkable since this species represents the first record of the genus from the Greater Caucasus.

## Material and methods

The material treated in this study is deposited in the author’s private collection (cAss).

The morphological studies were conducted using Stemi SV 11 (Zeiss) and Discovery V12 (Zeiss) microscopes, and a Jenalab compound microscope (Carl Zeiss Jena). The images were created using digital cameras (Axiocam ERc 5s, Nikon Coolpix 995), as well as Labscope and Picolay software. The map was created using MapCreator 2.0 (primap) software.

Body length was measured from the anterior margin of the labrum to the apex of the abdomen, the length of the forebody from the anterior margin of the labrum to the posterior margin of the elytra, head length from the anterior margin of the clypeus to the posterior carina,

head width across and including the eyes, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule. The “parameral” side (i.e., the side where the sperm duct enters) is referred to as the ventral aspect.

## Description

*Tectusa abanona* spec. nov.

urn:lsid:zoobank.org:act:DC408036-37A5-4112-AEA5-614D3F89DF92

(Figs 1–7)

**Type material:** Holotype ♂: “GEORGIA [59] – Kakheti, Abano pass N Lechuri, 42°16'42"N, 45°30'32"E, 2860 m, 30.VII.2022, V. Assing / Holotypus ♂ *Tectusa abanona* sp. n., det. V. Assing 2022” (cAss). Paratype: 1 ♂: same data as holotype (cAss).

**Etymology:** The specific epithet is an adjective derived from Abano, the name of the pass where the type material was collected.

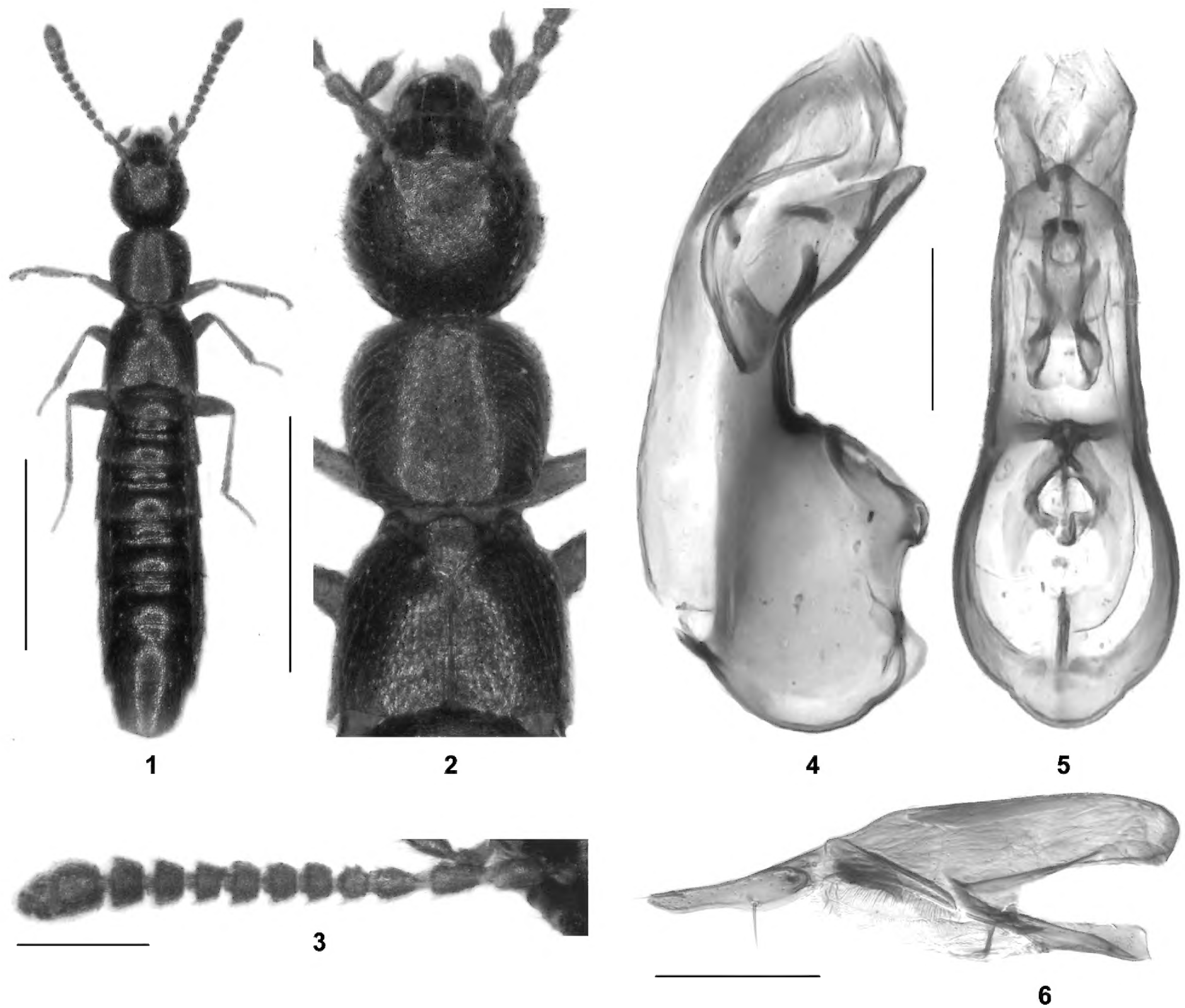
**Description:** Body length 3.2–3.3 mm; length of forebody 1.3 mm. Habitus as in Fig. 1. Colouration: body blackish-brown to black; legs pale-brown; antennae blackish with the basal two antennomeres slightly paler at most; maxillary palpi brown.

Head (Fig. 2) indistinctly oblong; punctation rather dense and fine; interstices with pronounced microreticulation. Eyes weakly convex and small, less than half the length of postocular region in dorsal view, composed of approximately 25–30 ommatidia. Antenna (Fig. 3) approximately 0.9 mm long; antennomeres IV weakly transverse, V–X of gradually increasing width and increasingly transverse, X approximately twice as broad as long, and XI of ovoid shape, unmodified, and approximately as long as the combined length of IX and X.

Pronotum weakly transverse, 1.07–1.08 times as broad as long and 1.04–1.07 times as broad as head, broadest in anterior half, and rather strongly convex in cross section; pubescence directed posteriad along midline, more or less laterad in lateral portions, and predominantly posteriad in antero-lateral portions; punctation and microsculpture similar to those of head.

Elytra 0.65–0.70 times as long as pronotum; punctation fine and dense; interstices with pronounced microsculpture. Hind wings completely reduced. Metatarsomere I rather short, approximately as long as combined length of metatarsomeres II and III, or slightly longer.

Abdomen broader than elytra, broadest at segment VI; tergites III–VI with anterior impressions; punctation fine and dense; interstices with pronounced microsculpture;



Figs 1–7: *Tectusa abanona*: 1 – habitus; 2 – forebody; 3 – antenna; 4–5 – median lobe of aedeagus in lateral and in ventral view; 6 – paramere; 7 – type locality (Georgia: Kakheti: Abano pass, 42°16'42"N, 45°30'32"E, 2860 m). Scale bars: 1: 1.0 mm; 2: 0.5 mm; 3, 6: 0.2 mm; 4–5: 0.1 mm.





Map 1: Distributions of *Tectusa* species in the Caucasus region: *Tectusa abanona* (black star); “*T.*” *caucasica* (white circle).

posterior margin of tergite VII without palisade fringe; tergite VIII with broadly convex posterior margin.

♂: posterior margin of sternite VIII broadly convex, not produced in the middle; median lobe of aedeagus (Figs 4–5) 0.36–0.38 mm long and shaped as in Figs 4–5; paramere 0.65 mm long, apical lobe more than half as long as basal portion, basally not distinctly dilated.

**Comparative notes:** *Tectusa abanona* is distinguished from “*T.*” *caucasica*, the only other congener known from the Caucasus region, by darker colouration (“*T.*” *caucasica*: body reddish-brown; antennae yellow), larger body size (“*T.*” *caucasica*: body length 1.8 mm), the shape of the pronotum (“*T.*” *caucasica*: pronotum broadest posteriorly), an anterior impression on tergite VI (absent in “*T.*” *caucasica*), and probably numerous other characters. For illustrations of the external and sexual characters of other previously revised *Tectusa* species see ASSING (2021).

**Distribution and natural history:** The type locality is situated in Kakheti (Georgia), some 90 km to the north-west of Tbilisi (Map 1). The specimens were sifted from stony soil and roots of cushion plants on a stony north slope at an altitude of 2860 m (Fig. 7). Remarkably, the slope completely lacked any signs of snow.

## References

- ASSING, V. 2021: On the taxonomy of *Parocyusa*, *Tectusa*, and miscellaneous genera of Oxypodina (Coleoptera: Staphylinidae: Aleocharinae: Oxypodini). – *Annalen des Naturhistorischen Museums in Wien - Serie B* **123**: 99–218.
- BERNHAEUER, M. 1902: Die Staphyliniden der paläarktischen Fauna. I. Tribus: Aleocharini (II. Theil). – *Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien* **52** (Beiheft): 87–284.